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UNIDO POLICY FRAMEWORK — ORGANIZATIONAL AND STAFF STRUCTURE

Improving UNIDO programmes through a strengthened focus

Proposals by the Director-General

Summary

In the context of the ongoing reform process of UNIDO, provides information on the work of the Organization in defining a clear focus of its activities, elaborates the seven programmatic themes that constitute its focus in the 1996-1997 biennium and outlines the implementation arrangements envisaged for achieving the operationalization of those themes.

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Introduction

1. At its thirteenth session the Industrial Development Board adopted decision IDB.13/Dec.2 in which the Director-General was requested to submit to the fourteenth session of the Board a progress report on the implementation of that decision including information on action taken in the context of UNIDO policy framework—organizational and staff structure and proposals for improving the programmes and strengthening the focus of the Organization in developing countries.

2. While information related to the staff structure, in particular on recruitment and staff development and training matters is provided separately in document IDB.14/8, the present report elaborates upon the efforts undertaken by UNIDO in defining a clear focus of the activities of the Organization in three interrelated dimensions: geographical, sectoral and thematic. It also provides information, in chapter V, on implementation and follow-up mechanisms that are and will continue to be applied by UNIDO, with a view to ensuring that the strengthened substantive focus is translated into effective programming as well as improved integration and quality of UNIDO services provided to developing countries. The present report is based largely on a conference room paper (PBC.11/CRP.3) on the focus of UNIDO activities that was submitted for consideration by Member States at the eleventh session of the Programme and Budget Committee.

I. THE CONCEPTUAL SETTING

3. The Organization's reform process was initiated in mid-1993 through intense consultations with Member States as well as through global and regional demand assessments that established a new conceptual and substantive framework for UNIDO services. These services were grouped under five broad development objectives which, together with a far-reaching organizational restructuring, were adopted by the General Conference at its fifth session (GC.5/Res.18). The reform process was carried through in 1994 and early 1995 in terms of putting the new structure into effect and complementing it by streamlined and more efficient managerial processes and administrative procedures.

4. The five development objectives, and the range and types of services to be delivered towards attaining them, which are also reflected in the medium-term plan, 1996-2001, were considered by the Board at its thirteenth session as important programme directives for the programme and budgets, 1996-1997 (IDB.13/Dec.14). These objectives and services thus constitute the longer-term setting for the future orientation and services of the Organization.

5. The salient features emerging from the demand assessment referred to in paragraph 3 above, as confirmed more recently, *inter alia*, by the various UNIDO programme review missions as well as by the in-depth study on the field representation programme, include:

(a) A shift and diversification of the users of UNIDO services with private sector entities and a range of industrial support institutions assuming increasing importance;

(b) High demand for integrated services (combining policy, institutional and operational advice) which, on the part of UNIDO, require multidisciplinary cross-organizationalteam work in their conceptualization and delivery;

(c) Appreciation of the function of UNIDO as provider of neutral and assessed information and advice, in particular in the endeavours of developing countries to meet the new rules of global competition and regional market integration as well as to implement internationally agreed conventions (Montreal Protocol; chemical safety; climate change), meet internationally agreed standards (such as ISO 9000 and ISO 14000) and advise in the process of selecting and transferring industrial technology. In this sense, the Organization has an important "normative support function";

(d) Emphasis on the contribution of UNIDO, through catalytic inputs, to the build-up of institutional capacities for direct support to industry (examples: national cleaner production centres in the field of environment; subcontracting exchanges in the field of small and medium enterprise (SME) promotion; support to industry associations in the field of private sector development). This calls for a clear focus on upstream activities.

6. It is recalled that a process of gradual change and focusing of UNIDO services has been ongoing since the fifth session of the General Conference. First, a new service management process was established that incorporated for the first time into the process of screening, review and approval, all projects proposed to be carried out by the Organization, including those financed under trust funds. As a result of this process, compatibility with the basic objectives, priorities and technical capabilities of UNIDO has been ensured. Secondly, specialization has occurred in terms of the number of directly supported subsectors and the corresponding Headquarters expertise, with reliance on (extrabudgetary financed) complementary external expertise and information systems if so required. Thirdly, with cross-sectoral issues gaining more importance—such as environment protection, quality systems, standards, human resource development and

investment promotion—various UNIDO services have changed in nature and available expertise has been adjusted accordingly. Fourthly, increased attention is now being given to policy issues and other upstream activities. Fifthly, large public industrial enterprises are no longer prime clients; rather small- and medium-private industries are the predominant clients, with services being provided through relevant associations and institutions. Lastly, specialized international and regional centres have been promoted with a view to enabling various technical services to be rendered directly by these centres to concerned entities and end-users.

7. In the proposals of the Director-General for the programme and budgets, 1996-1997 (IDB.14/2 and Corr.1), the structural approach and presentation of the approved programmes and budgets, 1994-1995 have been maintained. Thus, the activities planned for the biennium and the resources allocated for their implementation, are grouped by organizational units. This approach allows direct budgetary monitoring and control of implementation. There is also a built-in degree of flexibility reflecting the non-predictability in many cases of precise outputs; this applies above all to technical cooperation activities.

8. The programme and budgets, 1996-1997, demonstrate a clear priority for substantive Programmes and field representation that have been strengthened significantly at the expense of administrative programmes within the overall zero real growth setting. The document also provides evidence how, within budgetary Programmes, a focus on a limited number of priority areas and/or sectors has been adopted. A case in point is Programme 740 (Engineering and Metallurgical Industries) under which five thrust areas have been singled out for coverage in the biennium.

9. With a view to complementing the priorities set for each organizational unit in the 1996-1997 programme and budgets, cross-organizational priority themes need to be formulated which respond to the identified demand for integrated, multidisciplinary services and, in so doing, draw on the core expertise of the Organization. Specifically, the introduction to the 1996-1997 programme and budgets (ibid., para. 44) singles out seven programmatic themes as being specifically relevant for that biennium. In a slightly modified form, these themes are elaborated in greater detail in chapter IV of the present report which: (a) defines the substantive components of each theme; and (b) explains the involvement and cooperation of different organizational units in their implementation. The seven priority themes constitute special dimensions of the five overall development objectives of UNIDO.

II. GEOGRAPHICAL FOCUS

10. While responding to industrial development needs and support requirements in all developing regions, the special focus of UNIDO clearly needs to be on the developing countries in Africa and on the least developed countries (LDCs), the majority of which are to be found in that region. These countries are far behind the rest of the developing world in terms of economic and industrial development. Unless strong international support is provided to complement their domestic efforts, the development gap will continue to widen.

11. This focus has been reaffirmed by the Yaoundé Declaration (GC.4/Res.20) which, *inter alia*, calls upon UNIDO to:

(a) Give special attention to the industrialization of the least developed countries, which face particular constraints in their resources and infrastructure; and

(b) Accord high priority to the industrialization of Africa and to the realization of the objectives of the second Industrial Development Decade for Africa (IDDA).

12. The Africa Programme of UNIDO (Programme 330 in the 1996-1997 programme and budgets) has recently intensified programme development endeavours for the region through a series of interdisciplinary programme review missions to African countries (14 in 1994). The requirements for UNIDO support as identified by these missions will be followed up throughout the Organization in the various substantive programmes concerned, partly drawing on funds available under IDDA. In 1994, the share of African countries and LDCs in the total technical cooperation delivery of UNIDO at the regional and country level stood at more than 40 per cent. Proactive efforts will be made to further increase this share in the next biennium.

13. As will be elaborated in chapter IV below, one of the seven programmatic themes that are given priority in the 1996-1997 biennium relates specifically to Africa and LDCs. Its focus is the effective interlinkage between industry and agriculture, an issue that is critical in overall efforts towards poverty alleviation, employment creation and food security. At the same time, under the other six themes, which are global in coverage, Africa and LDCs will also be addressed.

14. For LDCs in Asia and the Pacific, UNIDO has launched a Special Programme which, in its first phase, concentrated on agro-related metalworking industries and

in its second phase on food-processing industries. The Special Programme will be continued in the next biennium. In the case of Haiti, the only LDC in the Latin America and the Caribbean region, reconstruction and development efforts may require a strong UNIDO contribution in the next biennium, following a full political settlement.

15. Outside Africa and LDCs, UNIDO is making an effort to formulate and update regional and country programmes to focus on a few common regional and subregional issues, such as industrial strategies and policies for international competitiveness and market integration, small- and medium-scale industry, investment promotion, and environmentally sustainable development. Projects involving economic and technical cooperation among developing countries (ECDC/TCDC) will be receiving increasing attention.

16. As an honest broker in industry, UNIDO will increasingly participate in investment and technology initiatives of a regional or subregional nature, such as those that are related with economic integration efforts, with networking of cooperation efforts, and the aftermath of peace agreements and operations.

17. For the economies in transition of Central and Eastern Europe and for the newly independent States of the former Soviet Union, programmes and projects are being formulated to meet priority demands in the fields of market-oriented policies and institutions, industrial restructuring, privatization, investment promotion and management and entrepreneurial development.

III. SECTORAL FOCUS

18. UNIDO, as lead agency for industrial development in the United Nations system, is expected to have the capacity and capability to respond to assistance requests from developing countries in the various sectors of the manufacturing industry.

19. Headquarters staff must command a broad knowledge of technical, economic and organizational issues of industrial development in key subsectors. This is required, above all, for the increasing demands placed on UNIDO staff (*inter alia* through technical support services at the programme (TSS-1) and project (TSS-2) levels) to undertake programme and project development work and provide substantive advisory services (upstream orientation). Likewise, in the management of technical cooperation projects, the involvement of headquarters staff requires broad expertise. Today's outward-oriented industrialization strategies, which have replaced previous import substitution policies, require continuous industrial restructuring and upgrading of industrial enterprises so as to meet the increasingly fierce international competition. UNIDO thus needs to be in a position to rely on a broad-based expertise that can respond to assistance requirements.

20. However, given the limited number of Professional-level staff, exhaustive expertise in all industrial subsectors cannot realistically be made available at Headquarters. Accordingly, the issue of the subsectoral focus of UNIDO has to be seen primarily as relating to the degree and nature of the involvement of the Organization and thus in the perspective of investments into staff expertise.

21. With these considerations in mind, UNIDO has undertaken an internal subsectoral prioritization review for the 1996-1997 biennium delineating:

(a) Those subsectors of industry to which UNIDO attaches high priority and which the Organization is capable and prepared to cover through core staff expertise. These subsectors are characterized by their overall importance for developing countries in terms of criteria such as employment potential, local resource processing, technological innovation effects, export potential, etc.

(b) Those subsectors that are accorded lower priority with the practical implication that only limited staff expertise will be built up at Headquarters. These subsectors will primarily be addressed in terms of "horizontal" issues such as human resource development, environmental issues, investment promotion and international competitiveness. If and when required, specialized expertise would have to be obtained from outside sources.

(c) Those subsectors that UNIDO does not foresee to address. Not "covering" a specific subsector would mean that UNIDO does not build up expertise or, in other words, that this subsector is not the subject of any active programming on the part of the Organization. This should not rule out, however, that UNIDO could respond to urgent developing country requests provided (i) the country faces a serious industrial development problem in that particular subsector, (ii) UNIDO can rely on, and manage efficiently, the required expertise from external sources, and (iii) extrabudgetary funding is provided.

22. Care must be exercised in trying to "de-select" entire subsectors of industry, in view of close intra-industry linkages and the horizontal nature of certain industrial issues, such as those resulting from environmental pollution. While some basic metallurgical industries would be of low priority in terms of Professional-level staff allocation, Headquarters expertise may be required to deal with certain specific aspects of their operation that are identified as UNIDO priorities

Sectors	Category			
	High priority	Low priority	No coverage	Total
Agro-based industries	17	8	6	31
Chemical industries	9	8	3	20
Engineering and metallurgical industries	6	14	6	26
TOTAL	32	30	15	17

such as, for instance, the environmental impact of the aluminium industry or the adverse effects of artisanal gold production or metallurgical processes in the manufacture of agricultural machinery.

23. It needs to be pointed out, however, that any prioritization of subsectors on the basis of the International Standard Industrial Classification (ISIC) does not fully capture those UNIDO activities that, by their very nature, cut across different subsectors of industry such as pollution control, waste management or energy saving. This notwithstanding, a review of subsectors according to their degree of priority for UNIDO is presented in the annex to the present document. The results are summarized in the synoptic table presented above that shows that, out of a total of 77 subsectors, UNIDO will concentrate its efforts and resources on 32 subsectors.

24. Some illustrative examples can be given for each broad category of subsectors. Within agro-based industries high priority will be assigned to the manufacture of food products, the spinning, weaving and finishing of textiles, the manufacture of wearing apparel, and tanneries and all leather-based industries. Low priority will be given to the manufacture of cocoa, chocolate and sugar and the manufacture of prepared animal feeds. Spirits and wine industries, soft drinks and carbonated waters industries, and tobacco manufacturing as such will not be covered by Headquarters expertise.

25. Within chemical industries, high priority will be assigned to the manufacture of pulp, paper and paperboard, fertilizers and pesticides, drugs and medicine, as well as building materials. The manufacture of paints, varnishes and lacquers, tyre and tube industries, and the manufacture of petroleum and coal products will receive low priority. Petroleum refineries and the manufacture of perfumes and cosmetics will not be addressed as such.

26. Within engineering and metallurgical industries, the manufacture of agricultural machinery and equipment, fabricated metal products, metal and woodworking machinery, as well as bicycles will receive high priority. Low priority will be given to the manufacture of engines and turbines, ship-building and repairing and basic iron and steel and non-ferrous metal industries. Not addressed as such will be the manufacture of aircraft, high precision instruments, watches and clocks as well as jewellery and related articles.

27. In addition, it needs to be pointed out that the sectoral prioritization in some cases takes into account areas of particular relevance within specific subsectors of industries. Examples are effluent and waste treatment within the tanneries subsector, medicinal plants within the manufacture of drugs, components and spare parts within the manufacture of motor vehicles (in view of their relevance for industries supporting SMEs), and maintenance systems in a number of engineering subsectors.

28. The subsectoral focus of UNIDO and its thematic focus (see chapter IV below) are closely interlinked and have to be seen in a joint perspective. In view of the thematic emphasis on linking agriculture and industry and on rural industrial development, agro-based industries also figure prominently among the subsectoral priorities of UNIDO. Likewise, among the subsectors of chemical industries and of engineering and metallurgical industries, those that have been prioritized are of particular importance to the thematic focus. Cases in point are fertilizers, pesticides and building materials as well as agricultural machinery.

IV. THEMATIC FOCUS

A. Conceptual issues

29. UNIDO has been mandated by its legislative bodies, including, in the context of the reform process, to address in its programmes a number of thematic priorities, including, above all, environment and energy

(GC.5/Res.6; IDB.13/Dec.7), development and transfer of technology (GC.5/Res.3; IDB.13/Dec.4), industrial investment promotion (GC.5/Res.7; IDB.13/Dec.8), small and medium industries (GC.5/Res.5; IDB.13/Dec.6) and private sector development (IDB.13/Dec.15).

30. While these mandated priorities are very broad and diversified, they have been taken into consideration in determining the seven programmatic themes proposed to constitute the thematic focus of UNIDO in the 1996-1997 biennium:

Theme 1: Strategies, policies and institution-building for global economic integration

Theme 2: Environment and energy

Theme 3: Small and medium enterprises: policies, networking and basic technical support

Theme 4: Innovation, productivity and quality for international competitiveness

Theme 5: Industrial information, investment and technology promotion

Theme 6: Rural industrial development

Theme 7: Africa and least developed countries: linking industry with agriculture

31. Themes 6 and 7 are obviously interrelated with the latter reinforcing the geographical focus on Africa and least developed countries, as elaborated in chapter II above.

32. A number of "horizontal" priority programmes of UNIDO, such as human resource development, private sector development, ECDC/TCDC and the integration of women are not explicitly included among the seven themes. This in no way detracts from their importance. Rather, they permeate all seven themes and will be oriented in their activities towards specifically supporting each of these themes. Concrete references are provided where appropriate.

33. Below, each of the seven themes is elaborated in terms of its substantive component programmes and the key activities planned by UNIDO for implementation in the next biennium. The relationship to the proposed programme and budgets, 1996-1997 is explained so as to show how different budgetary Programmes interact in addressing these themes in a cross-organizational perspective. Broad tentative budgetary allocations are made for each of the themes (in terms of regular budget/operational budget resources expected to be spent on their implementation which are complemented by estimated technical cooperation delivery figures).

34. The estimated budgetary allocations for the seven programmatic themes would be calculated according to the following criteria: (a) direct resource allocations in the case of the implementing Divisions of UNIDO (Major Programmes 500-800) in proportion to their substantive involvement in each of the themes; (b) the Regular Programme of Technical Cooperation and IDDA resources under Major Programme 900 on the basis of expected approval patterns; (c) the resources of Major Programmes 300, 400 and 1000 and those of Subprogramme 1222 largely in proportion to the above allocations, taking into account also the expected technical cooperation delivery pattern for the biennium; (d) in view of the general overhead nature of Major Programmes 100, 200 and 1200 (except Programme 1222), their resources would not be allocated to the themes.

35. Account should be taken of the fact that UNIDO offers a number of support services that cannot be fully linked to the seven programmatic themes. These services—such as research, statistics, studies and certain technical support—not only provide the Organization with tools and data for the priority programmes but also result in self-contained products such as the global and sectoral reports. They may also be provided in response to ad hoc demands from Member States. The same applies to post-emergency assistance and stand-alone activities that may result from the need to respond flexibly to unforeseen, and thus unprogrammed, demands from Member States. Resources expected to be required for such "other" activities outside the seven programmatic themes amount to less than 10 per cent of the total budgetary and extrabudgetary resources.

B. The seven programmatic themes

Theme 1: Strategies, policies and institution-building for global economic integration

36. Industrial development of developing countries over the years has brought about increased integration and globalization of markets for goods, services, technologies, finance, production locations and labour. This has been accompanied by increased trade and capital flows, a greater international division of labour based on specialization and comparative advantage, expanded transnational networks and enterprise alliances, and an extensive development of global communications and information systems.

37. These trends have been accentuated in recent years by the liberalization of world trade, transformation of the centrally planned economies into market economies,

abandonment or relaxation of State-controlled industrial and pricing policies, and opening up and deregulation of over-protected markets with a lead role given to the private sector, including through foreign investment.

38. The implications for and impact on developing countries of global and subregional economic integration efforts, including the need to build up capabilities for capturing new opportunities are manifold and require the priority attention of UNIDO.

39. This theme will be addressed through two component programmes:

(a) Industrial strategy and policy advice;

(b) Advisory and institutional support services addressing industrial implications of global and regional economic agreements.

Theme 1 is to be seen in close linkage with Theme 4, under which innovation, productivity and quality dimensions of achieving international competitiveness are specifically addressed.

Component (a): Industrial strategy and policy advice

40. The major cross-regional trends characterizing world industry—increased global and regional integration, liberalization of foreign trade and foreign direct investment, deregulation and private sector emphasis—have the combined effect of exposing most economies including those of developing countries to greater prospects for global partnerships but also to greater competitive pressures. In general, there is less protection than in the past for industries on the domestic market and a higher share of industrial output is targeted at export markets. The net result is accelerated structural change in the industrial sector in terms of a changing sectoral composition, new production technologies, and new technical and managerial skill requirements. As a corollary to these trends, it has proven to be increasingly difficult for policy makers to rely on detailed long-term growth projections and to prepare comprehensive industrial development plans. While this implies a changing function of the government (from a "regulator" to a "promoter" of industrial development), it continues to require the formulation of efficient industrial policies with a view to creating an enabling environment for a competitive industrial system.

41. It is one of the basic tasks for United Nations agencies to assist developing countries in their endeavours to reconcile global integration with the imperatives of their domestic economic and social development. UNIDO addresses this challenge specifically in industry, which is the sector with the highest exposure to international competition and at the same time providing the greatest impetus for overall growth.

42. UNIDO will support developing countries in elaborating and implementing industrial strategies and policies conducive to creating an enabling environment for industrial growth and overall socio-economic development. This will take into account the need to integrate a number of related policy domains such as trade policies (with regard to manufactured goods), competition policies, investment promotion policies (with emphasis on foreign direct investment as one mechanism of global economic integration), technology policies and locational policies.

43. Special emphasis will be placed on building up institutional capacities aimed at fostering private sector development, including capacities to design and implement effective privatization policies and programmes. The target group for this will be, above all, countries with weak private sectors, particularly countries with economies in transition to market-based development.

Component (b): Advisory and institutional support services addressing industrial implications of global and regional economic agreements

44. Economic integration is proceeding rapidly at both the global and the (sub)regional levels with far-reaching implications for different groups of developing countries.

45. At the global level, the GATT Uruguay Round Agreements—beyond the creation of the new World Trade Organization—are of great relevance for developing countries. The Agreements have generally improved market access to developed countries: the value of industrial goods from developing countries entering duty-free may, over time, double as a result. However, trade liberalization gains are likely to be unevenly distributed. Most analyses suggest that among the developing regions, Asia will benefit the most, with smaller gains for Latin America and the Caribbean, while Africa may be facing a possible net loss due to the erosion of present trade preferences.

46. UNIDO will offer its services in analysing the impact of those trends on the development prospects of industry in various developing countries, especially with regard to export-intensive industrial sectors. Based on such analyses, programmes will be elaborated for industrial restructuring and policies with a view to enhancing competitiveness. Special emphasis will be given to African countries and to those industrial sectors most affected by those Agreements.

47. At the (sub)regional level, economic integration and cooperation among developing countries is being pursued with renewed vigour. The countries of the Association of South-East Asian Nations, of the Common Market of the South in Latin America and of the Common Market for Eastern and Southern Africa are cases in point. In forging and strengthening their economic ties through harmonization of industrial policies and institutional measures, these and other subregional groups seek support from UNIDO, whose neutral position is highly valued.

48. UNIDO will thus place special emphasis on assisting subregional cooperation groups, *inter alia*, through:

(a) Subsectoral studies on the impact of trade liberalization on patterns of competitiveness;

(b) Advisory services on institutional requirements and mechanisms to enhance industrial cooperation and complementarities in industrial production; and

(c) Operational advice on the harmonization of industrial and environmental policies, laws and standards.

C. Link to programme and budgets 1996-1997

49. Programme 650 has the overall function of advising and supporting developing countries in formulating policies that create an enabling environment for enhancing competitiveness and stimulating growth of industry. In this context, it will focus on private sector development strategies. The general work of Programme 650 will be complemented by more specific work on investment policies, codes and incentives under Programme 820, and on technology policies under Programme 830.

50. Analytical work related to the forms and impact of global economic integration will be carried out by Programme 540 while Programme 840, in its ECDC/TCDC-related activities, will specifically address industrial development issues of (sub)regional economic cooperation agreements. The Regional Programmes 330 to 370 will explore assistance requirements in greater detail, specifically through field offices.

Theme 2: Environment and energy

51. The specialized agencies of the United Nations system were requested by the United Nations Conference on Environment and Development to integrate the concept of sustainable development into their programmes and projects. UNIDO has been requested by its Member States (GC.5/Res.6 and IDB.13/Dec.7) to continue, in particular in its efforts towards supporting Agenda 21, the implementation of international environmental treaties and conventions and the transfer of clean and safe technologies.

52. This theme will be addressed through four component programmes:

(a) Environmentally sustainable industrial development (ESID) strategies;

(b) Clean and safe production;

(c) Implementation of international conventions;

(d) Environmentally sound use of energy.

Component (a): Environmentally sustainable industrial development (ESID) strategies

53. ESID strategies are based on a holistic approach that brings the environmental dimension to bear on all planning, policies and measures related to industry in a country. This implies the correction of both market failures which result in an undervaluation of environmental costs and policy failures which encourage the excessive use of scarce natural resources. UNIDO seeks to foster the integration of environmental and industrial policies in a manner that does not adversely affect the overall objective of industrial development and growth.

54. UNIDO will support developing countries in their related endeavours in the following areas:

(a) Data and information collection and analysis;

(b) Formulation of ESID strategies to establish environmental goals and action plans, in close consultation with the responsible government agencies and based on a review of existing industrial and environmental policies;

(c) Determining the appropriate mix of specific policy instruments, such as regulatory measures, economic incentives and locational policies;

(d) Development of institutional structures for integrated industrial and environmental decision-making and policy implementation, involving Governments, non-governmental organizations (NGOs) and industry associations;

(e) Development of monitoring and enforcement mechanisms;

(f) Training on environmental management tools such as environmental auditing, environmental

impact assessment, information systems design and public awareness campaigns.

55. An increasing number of developing countries are embarking upon the elaboration of national Agenda 21 strategies and programmes. UNIDO will support these initiatives in both the conceptual and implementation stages (along the lines of the significant UNIDO involvement in Agenda 21 for China) through strategy advice and operational support.

Component (b): Clean and safe production

56. The reduction of industrial pollution by means of cleaner production has been identified as the key to environmentally sustainable industrial development. Cleaner production, also referred to as pollution prevention and waste minimization, improves environmental quality and often enhances profitability by eliminating waste at the source. It has been accepted, following the United Nations Conference on Environment and Development in 1992, as one of the primary tools for industry to achieve environmental improvements while remaining competitive and profitable.

57. Cleaner production requires the continuous application of an integrated preventive environmental strategy to processes and products with a view to reducing risks to humans and the environment. The key issue is how to improve the efficiency of industrial production by reducing waste and redesigning products to make them less polluting and easier to recycle. The need is particularly great in small and medium-sized enterprises.

58. UNIDO will support clean and safe production both through sector-wide programmes addressing industry at large and through subsector-specific programmes.

Sector-wide programmes

National cleaner production centres

59. UNIDO, in cooperation with the United Nations Environment Programme (UNEP), is working with industry-oriented institutions such as national productivity councils and chambers of commerce and industry. A new programme has been launched to support national cleaner production centres, hosted by such existing institutions, in approximately 20 countries for a five-year period. Such centres will play a coordinating and catalytic role in cleaner production by improving awareness of pollution prevention requirements, providing technical information and advice, demonstrating cleaner production techniques and technologies at the enterprise level, and training industry and government professionals. During the first phase of the programme, 1994 to 1997, support will be provided for six such centres for three years.

Hazardous waste management

60. UNIDO will assist developing countries to minimize the generation of hazardous waste and to develop environmentally safe and sound management systems for such wastes when they arise. The important role that UNIDO can play in this area was recognized by the first conference of the parties to the Basel Convention. Special emphasis will be placed on those categories of hazardous substances where UNIDO has acquired recognized special expertise, such as waste oils used in various manufacturing processes (used engine oils, solvents, degreasing agents, cutting fluids and polychlorinated biphenyls-based transformer oils) and sulphate and chlorine used in conventional pulping and bleaching technologies. Working with a network of international and bilateral organizations as well as NGOs, UNIDO will focus on environmental impact assessments for hazardous waste management programmes and on human resource development. Training courses on hazardous waste management will be organized.

Water management

61. The problems related to water pollution and industrial water management are of a complex nature and often involve the pollution of entire rivers and coastlines as well as the contamination of soils and groundwaters. UNIDO will focus its support on two levels, viz. the overall management of water pollution for industry affecting larger areas and the efficient utilization of water in industrial operations. The UNIDO response to the first issue includes monitoring and analysis of industrial sources of water pollution, drawing up pollution reduction/prevention strategies, and helping government agencies in formulating and enforcing regulations. Industry itself will be supported in efficiency-enhancing programmes that reduce water consumption and water-borne pollution, treat residual waste water, and improve the quality of process water through environmentally sound treatment methods. The contribution of engineering industries to water management will be specifically studied.

Subsector-specific programmes

Leather and tanning industry

62. The leather industry can have serious adverse impacts on the environment. In particular, tanning processes are known to be highly polluting due to the

large amount of dissolved and suspended solids in effluent. UNIDO will continue its recognized programme on introducing cleaner technologies from the hides and skin preservation stage through wet and dry finishing of leather.

63. UNIDO assists developing countries by two approaches: cleaner production and end-of-pipe improvements to existing plants. Cleaner production must be considered in planning future facilities and modifying existing plants. However, in many countries of the world the effluents from the existing leather industries are causing severe environmental damage, making end-of-pipe measures necessary as an immediate response. UNIDO, having considerable expertise in the process of leather production and the treatment of tannery wastes, promotes the introduction of recycling and recovery measures and the use of water-based rather than solvent-based finishing materials.

Environmentally sound management of toxic chemicals

64. Chemicals are vital to many industrial processes. At the same time, many of the chemicals that industry handles, whether as raw materials, intermediates or finished products, can be harmful to the environment, to people and to animals if not properly processed or used. The severity of the effects of the chemicals depends on their inherent toxicity and the nature of the exposure.

65. The risks of damage by toxic chemicals are particularly high in developing countries where chemical industries are often based on outdated technology. Moreover, while many chemicals, especially pesticides, that are banned or severely restricted in developed countries continue to be imported or produced in developing countries, the latter frequently do not have adequate plans for dealing with emergencies or accidents. Small and medium enterprises face a particular challenge, as they are likely to have no affiliation to multinationals and consequently very little exposure to recent developments in the sound management of chemicals, including product substitution.

66. UNIDO will support both Governments and industry itself in monitoring and controlling the handling of toxic chemicals, particularly in the fields of pesticides and their formulation, pharmaceuticals, petrochemicals and polymers, and dyes and dye intermediaries. This will involve options for discontinuation or substitution of their use or, where this is not possible, the design of closed operating systems in order to avoid exposure. The collection and dissemination of relevant information through regional and global networks will be pursued as a priority concern, and training on the management of toxic chemicals will be organized.

Environmentally sound management of biotechnology

67. In September 1993, UNIDO was designated Task Manager on Biotechnology by the Administrative Committee on Coordination Inter-Agency Committee on Sustainable Development.

68. For developing countries, biotechnology offers great opportunities, but also presents new risks. New and powerful diagnostics, vaccines and drugs can be obtained for diseases prevalent in developing countries. The productivity of major food crops can be raised, sustainable methods of afforestation and reforestation can be supported and more efficient industrial processes for transforming raw materials can be developed. At the same time, in the vast majority of developing countries a biosafety regulatory infrastructure is non-existent or, at best, underdeveloped and unable to cope with the monetary and enforcement requirements necessary to establish and implement policy.

69. Together with other United Nations entities, UNIDO will concentrate on developing guidelines on biosafety and industrial bioresource development and on capacity-building for biotechnology research and its application. It will also facilitate, *inter alia*, through its specialized technology centres, cooperative research programmes and global information networks in specific areas of biotechnology commercialization.

70. The investment promotion programme will pay special attention to promoting clean technology investments in the above sectors, and Techmarts on clean technologies will be organized.

Component (c): Implementation of international conventions

71. UNIDO has an increasingly important function in supporting developing countries in their endeavours to meet commitments resulting from international conventions, protocols and action plans for the protection of the environment. Concentration is on international environment-related policy initiatives or legislation that concerns the phasing out of ozone-depleting substances (Montreal Protocol), the alleviation of chemical risks and enhancement of chemical safety (International Programme on Chemical Safety), the conservation of freshwater resources and the need to mitigate the effect of greenhouse gases on climate change (Framework Convention on Climate Change) partly funded under the Global Environment Facility.

72. A major challenge for UNIDO is the phase-out of ozone-depleting substances under the Montreal Protocol, where UNIDO is focusing on preparing subsectoral phase-out strategies and on supporting enterprises in

retrofitting, maintenance, recycling and training of technical personnel. Priority application areas will include refrigerants, foams, solvents and fumigants. A considerable volume of technical cooperation is expected to be approved for UNIDO implementation based on the special expertise of the Organization.

Component (d): Environmentally sound use of energy

73. Rapid growth in manufacturing output is the dominant factor affecting energy consumption in many developing countries. While improved energy production is one prerequisite to industrial development, the production and use of energy has environmental impacts at all levels: local, regional and global. Increase in production should thus be pursued in a manner that is environmentally sound. An important consideration is greater energy efficiency, which can yield both economic and environmental benefits.

74. The energy-related activities undertaken by UNIDO address in particular two problems: providing adequate, environmentally sound energy supplies where lack of energy is a barrier to development and enabling developing countries to address local, regional and global environmental concerns arising from increasing energy consumption, particularly when the energy source is fossil fuels.

75. UNIDO will concentrate on:

(a) The development and production of new and renewable sources of energy, specifically solar energy, hydrogen energy, biomass energy and wind energy;

(b) The development and promotion of clean coal technology (increasing efficiency and minimizing environmental impacts of low-grade coal utilization); a review will be undertaken of clean coal technologies suitable for application in developing countries;

(c) Energy auditing and increasing energy efficiency in industrial processes, with special emphasis on small and medium enterprises;

Link to programme and budgets 1996-1997

76. The activities under this theme will be carried out under the general coordination and lead role of Programme 750, which will also partly be responsible for their implementation. The sector-specific Programmes 720-740 will play the key role in implementing clean and safe production approaches. Specifically, Programme 720 will address clean technologies in the leather and textiles/clothing subsectors and the environmental sustainability of wood-processing. Programme 730 will focus on safety issues in chemicals and pesticides production (*inter alia* through ecotoxicology studies and the promotion of regional networking). Programme 740 will be heavily involved in Montreal Protocol projects as well as in environmental and energy audits and standards. Issues related to biomass energy, as well as the safe management and commercialization of biotechnologies will be addressed in Programme 730 and Subprogramme 831. The latter will also be involved in promoting partnerships in solar energy research.

77. Programme 650 will provide inputs concerning the integration of environmental with overall industrial strategies and policies. The cooperation of Programme 620 will be required on appropriate human resource development approaches in the context of national capacity-building.

78. Subprogramme 821 will specifically promote investments in clean technologies. This will be done in close cooperation with Subprogramme 832 which, in its Techmart activities, will demonstrate their potential. At the same time, Programme 840 will concentrate on the promotion of both North-South twinning arrangements and ECDC/TCDC on energy and environment-related industrial issues.

79. Programmes 520 and 530 will devote special attention to enhancing the database on clean technologies and broadening environmental and energy statistics, respectively.

Theme 3: Small and medium enterprises: policies, networking and basic technical support

80. Small and medium enterprises (SMEs) play a key role in the economic development of developing countries and form an essential part of the industrial infrastructure. Such enterprises contribute to growth, employment, poverty alleviation and rural development, and have the capacity to respond quickly to market opportunities and product niches as well as to small and local specialized needs. However, given their size and lack of expertise, they also require assistance through an efficient institutional and policy framework that can facilitate access to information, technological know-how and specialized skills. While individual SMEs are performing best when narrowly specialized, organized groups of SMEs are able to meet broader and more complex challenges. With liberalized markets, this aspect becomes ever more critical. The development of a dynamic and integrated industrial structure with a strong basis of SMEs is a key to international competitiveness.

81. This theme will be addressed through four components:

(a) Policy analysis and advice;

(b) SME support systems and institutions;

(c) Networking of SMEs;

(d) Basic technical support for enterprise upgrading.

Component (a): Policy analysis and advice

82. This first component addresses the creation of an enabling policy environment. In practice, the macro-economic policies of most countries have favoured the development of large-scale enterprises and thereby inhibited SMEs. Industrial and trade policies and incentives should at least be non-discriminatory. Policies should favour linkages with other sectors of the economy, and encourage SMEs to cooperate among themselves and link with larger enterprises.

83. Under this component UNIDO assists governments in the formulation of strategies, policies and programmes to promote and support the development and growth of SMEs. In particular, it aims at facilitating the cooperation of Governments with the private sector in order to improve the framework of incentives and regulations. Gender-related issues should be addressed to ensure the promotion of equal participation of both women and men in SME development activities, as SMEs form a major opportunity for initiatives by women.

84. To ensure that advice given by UNIDO continues to be of high quality and up to date, its SME programme will be continuously reviewed and updated through an international network which will exchange information, observe and analyse global trends, new strategies, policies and institutions.

Component (b): SME support systems and institutions

85. This component aims at strengthening SME support systems and institutions for the creation and growth of SMEs and assist in upgrading their managerial, technological and financial capabilities. UNIDO will support the organization and restructuring of SME development agencies to ensure their effectiveness. UNIDO will also advise on and support the organization of decentralized networks of technical and financial support services at the country level.

86. The SME development agencies and other providers of services to SMEs will be further supported by technological information and advice through UNIDO technology services including the Technological Information Exchange System and the Industrial and Technological Information Bank. These will be expanded and special attention will be paid to SMEs. SME development agencies will also be assisted in the promotion of (mainly medium-scale) investment opportunities through the UNIDO investment promotion network.

87. Selected support organizations will be approached to host training activities and to implement the thematic programme for "Women entrepreneurs for growth". Advice on training approaches, and specialized training of trainers will be made available to SME development agencies and other focal points of assistance to SMEs.

Component (c): Networking of SMEs

88. Experience has shown that the development of SMEs can be considerably stimulated and their access to markets substantially expanded if they cooperate and form subsectoral, regional or local clusters in order to attain economies of scale, strengthen negotiating capabilities and enhance their overall competitiveness. Similar beneficial effects can be achieved through subcontracting arrangements between large and small and medium enterprises and between SMEs themselves. Industry associations and other self-help organizations can also be instrumental in promoting SME development.

89. UNIDO will promote and advise on the development of mechanisms to help SMEs identify partnerships and subcontracting arrangements, as well as to assist SMEs in organizing themselves in flexible clusters.

Component (d): Basic technical support for enterprise upgrading

90. UNIDO will support, through its technical expertise, the enhancement of productivity, quality and competitiveness; restructuring requirements and employment generation; technological absorption and innovation; and energy efficiency and environmental protection in the SME sector. The required technical cooperation and advisory services will primarily be channelled through sectoral and/or regional associations.

91. These technical support activities for SMEs are directly related to a number of other programmatic themes: For example, productivity and quality enhancement is addressed under Theme 4; industrial restructuring issues and resulting employment effects are dealt with under the perspective of Theme 1; and environmental and energy questions fall under Theme 2. This clearly reflects the fact that UNIDO, in the vast majority of its programmes and activities, has adopted a pronounced focus on SMEs. In addition, subsector-specific technical support will be provided to SMEs under Themes 6 and 7 in the subsectors concerned.

Link to programme and budgets 1996-1997

92. The main and coordinating role for this theme will be played by Programme 640. Programme 650 will play a supporting role in policy analysis and advice while Programme 620 will assist in entrepreneurship development. Subprogramme 312 will assist with gender-related issues including specialized training and thematic programmes. Programme 830 will contribute to the enabling environment by advice and information on new and best technologies for SMEs. Programme 520 will strengthen the delivery of technology information to SMEs. Programme 820 will contribute through the promotion of investment opportunities in small and (mainly) medium enterprises. Subprogramme 823 will update and promote the UNIDO Manual for SME Investment Design and Appraisal. Programme 620 will assist with human resources development activities in the SME field. Programme 700 will provide specific technical services in support of SME development needed for interventions in specific subsectors and for environmental issues.

Theme 4: Innovation, productivity and quality for international competitiveness

93. The competitive pressure on industry in developing countries has greatly increased and necessitates effective responses in terms of productivity enhancement, both at the enterprise level and at the level of institutions supporting quality-oriented research and development. Under Theme 1 (Strategies, policies and institution-building for global economic integration), the impact on developing countries of global and regional integration trends will be reviewed and assessed, and strategy and policy responses elaborated. Theme 4 addresses the specific operational implications at the level of industrial enterprises and of institutions supporting the process of innovation and productivity enhancement.

94. This theme will be addressed through three component programmes:

(a) Quality management;

(b) Enterprise restructuring and rehabilitation;

(c) Research and development for industrial innovation.

Component (a): Quality management

95. Developing countries are increasingly recognizing that quality management at all levels is crucial for efficient industrial development and therefore instrumental in achieving economic and social progress. The role of quality has become a critical variable influencing the competitiveness of an enterprise. However, increased quality is but one by-product of an approach that stresses the continuous improvement of all aspects of the production process. Increased product quality—along with a simultaneous stream of advances in productivity, flexibility, and cost performance—occur as a result of a dynamic form of continuous improvement of the overall organization of enterprises.

96. Two areas of prime importance for policy improvements are metrology and standards, with ISO 9000 at present being the most significant and fastest growing standard used for setting up quality systems.

97. UNIDO has built up a widely recognized support programme in this area of vital importance for industrial competitiveness. Assistance will be provided to:

(a) Governments in the elaboration of quality control, standardization and metrology policies as well as on establishing related institutions and ISO 9000 certification bodies;

(b) Metrology bodies in their overall rehabilitation and the upgrading of existing reference standards and procedures;

(c) Industry associations in the establishment of sectoral laboratories and capacity-building in applying various quality management tools;

(d) Groups of enterprises in setting up specialized laboratories, implementing the system approach for continuous quality improvements, and meeting ISO 9000 certification requirements.

98. UNIDO will develop integrated support programmes that capitalize on combining its general expertise on quality management with subsector-specific knowledge. A further innovative element is statistical quality control techniques on which three to five larger technical cooperation programmes are expected to be implemented in the next biennium.

Component (b): Enterprise restructuring and rehabilitation

99. In their efforts to promote competitive markets and efficient enterprises, developing countries and countries in transition require assistance in restructuring programmes with a view to enhancing the economic performance and productivity of industrial enterprises.

100. Privatization is one dimension of these programmes. UNIDO provides overall support to

privatization in terms of policy advice and institution-building as well as enterprise restructuring. In this context, special emphasis will be placed on mitigating adverse social impacts of privatization, *inter alia* through skill upgrading and retraining programmes targeted at displaced labour.

101. The restructuring and rehabilitation of industrial enterprises will be addressed by UNIDO in a manner that ensures catalytic impacts beyond the enterprise level. Assistance will be provided to groups of predominantly SMEs with transparency and dissemination of results ensured through the involvement of industry associations and chambers. Also, training programmes will be launched with local institutions, and local consultancy companies will be significantly involved and their capacities enhanced.

102. It is thus ensured that the support provided directly to groups of enterprises has maximum spread effects for a large segment of industry. In this, follow-up work to be undertaken on investment opportunities arising in the course of restructuring and rehabilitation work is another important dimension.

Component (c): Research and development for industrial innovation

103. Industry-oriented research and development is an area in which the scarce resources spent by developing countries are often not invested in the most effective and efficient manner. Among the major constraints and shortcomings are: a bias towards basic research; a lack of transfer institutions linking the R and D system with industrial needs and clients; a resulting weakness in designing industry-relevant research programmes with high commercialization potential; the existence of public sector-oriented research and technology institutions in need of revitalization and reorientation; and limited availability of high-level technical manpower.

104. At the same time, developing countries increasingly perceive a strong need to build up domestic technology development capacities and in particular capacities related to the adaptation of existing technology. The latter can be critical for the applicability of available generic technologies and requires capabilities for performance testing, introducing design changes or downscaling for specific applications.

105. UNIDO will address this issue primarily through advice on technological innovation policies and support in building up the required institutional infrastructure. Special emphasis will be on identifying innovation constraints and innovation strategies for SMEs with a view to stimulating the creation of technology-based industries.

106. Guidelines will be developed on the commercialization of biotechnology in developing countries. In the field of solar energy technology (and drawing on the specialized expertise of centres of application for solar energy), opportunities for research consortiums and investment and technology partnerships will be developed. The revitalization and reorientation of existing industrial and technological research institutions in developing countries will receive special attention.

Link to programme and budgets 1996-1997

107. The issue of quality management is addressed by a number of Programmes in various Divisions. The cross-sectoral responsibility lies with Programme 630 for supporting quality control, standardization and metrology as well as the institutional capacities for ISO 9000 certification and enterprise-level implementation. Sector-specific quality management issues are covered by Programmes 720-740, with special emphasis in the case of Programme 740 which has adopted quality management as one of its five thrust areas for the 1996-1997 biennium. Programme 530 is responsible for promoting statistical quality control techniques and Programme 520 for information on new competitive technologies.

108. Programme 630 addresses restructuring and rehabilitation requirements of industrial enterprises. Its managerial expertise is complemented by the sectoral expertise of Programmes 720-740. Programme 620 provides important inputs in terms of entrepreneurship development and managerial training.

109. Programme 830 focuses on the policy and institutional requirements for stimulating technological innovation and is supported, on sector-specific R and D technology issues, by Programmes 720-740.

Theme 5: Industrial information, investment and technology promotion

110. Access to industrial information is a decisive factor for industrial competitiveness, which is contingent on the ability to continuously upgrade and adapt the production of goods and services in response to changing market demands. Industries of all sizes require access to up-to-date information on a broad spectrum of areas, including technologies, patents and environmental protection, investment opportunities, market trends, and export potentials. In particular, small and medium industries also require support in entering into joint venture arrangements and technology transfer negotiations. Recent years have seen dramatic advances in the information industry, and the pace of progress shows no sign of slowing down. Of particular significance is the

recent rapid growth of electronic networking and its impact on access to and delivery of world-wide information.

111. The flows of foreign direct investment to developing countries, which suffered a setback at the beginning of the decade, have strongly recovered in most recent years. However, they are still highly concentrated on a limited number of developing countries while, in the majority of developing countries, constraints need to be overcome to increase the absorptive capacity for foreign investment. Likewise, most developing countries require support in facilitating access to industrial technologies, assessing their economic and social impact and negotiating their transfer.

112. The theme will be addressed through three components:

(a) Technological and investment information;

(b) Investment promotion;

(c) Technology promotion.

Component (a): Technological and investment information

113. There is a strong need to provide to Member States as well as to the United Nations system assessed information on industrial development. UNIDO will undertake special efforts in the coming biennium to ensure integrated processing and dissemination of the wealth of industrial information generated in its various programmes and activities. The main instruments will be the further strengthening of the Industrial and Technological Information Bank (INTIB) and the Industrial Referral System on specialized sources of information.

114. In several developing countries, national INTIB focal points will be expanded into information networks. Training on information resource management will be provided. Clean technologies will receive special attention as part of the INTIB database and through the issuance of special Technology Monitors. The Energy and Environment Information System (EEIS) will be strengthened. The database on investment opportunities and on investment project sponsors in developing countries will be expanded.

115. The use of modern information services technologies and electronic networking will be promoted and projects will be designed aimed at providing information services particularly to SMEs. INTIB will also act as an agent for promoting interregional cooperation in industrial information. In the preparation and implementation of Techmarts, information support on specific technology options and related investment opportunities will be essential.

116. Special emphasis will be placed in the biennium on upgrading and networking the various UNIDO information services to allow rapid transmission of multidimensional information between Headquarters and UNIDO offices abroad and, upon request, to external clients. This also involves the World Investment Network Services (WINS) for which UNIDO will develop an interactive CD-ROM.

Component (b): Investment promotion

117. The active promotion of foreign direct investment by developing countries reflects the fact that such investment is seen as an effective tool for accelerating domestic industrial development through strengthening capital accumulation, technology transfer and local skills as well as facilitating access to foreign markets.

118. UNIDO will support these endeavours through a variety of services in an integrated approach. In addition to advice on investment policies and codes (which is addressed under Theme 1), this includes the strengthening of investment promotion institutions in developing countries; the formulation and screening of project profiles based on feasibility studies; and the presentation of investment proposals to potential foreign investors, *inter alia*, through investment forums. Training of investment promotion staff from developing countries will receive special emphasis through group training and delegates' programmes.

119. The investment promotion work of UNIDO will pay special attention to the growing role of small and medium-sized investing companies, to the investment potential in specific regions within countries (see also component (a) of Theme 6) and, within an ECDC/TCDC perspective, to the increasing potential of investment flows among developing countries at different stages of industrial development. Industrial Development Reviews will contribute economic analyses in support of investment promotion efforts.

120. The establishment of new UNIDO Investment Promotion Service offices, increasingly also in developing countries with a view to promoting both inward and outward investment, will be a key activity in the next biennium. These offices are interconnected in a communication network.

Component (c): Technology promotion

121. Developing countries require UNIDO support in facilitating access to industrial technologies, assessing their economic and social impact and negotiating their transfer.

122. UNIDO will provide advisory services on the formulation of technology policies that are conducive to stimulating the absorption of new technologies in industry. In this, the focus will be on new cross-sectoral technologies, such as telecommunication, biotechnology and innovative energy technologies, with a view to ensuring their efficient industrial application.

123. A major activity will be geared towards supporting the actual process of technology acquisition. The UNIDO training material on technology transfer and joint venture negotiations will be upgraded and applied in the training of trainers. New and innovative build-operate-transfer (BOT) schemes and strategic alliances will receive special attention.

124. The UNIDO Techmart programme will be continued as an effective mechanism to familiarize, in particular, SMEs with new technological options and to initiate and conclude business contracts. The link between Techmarts and Investment Forums will be strengthened.

Link to programme and budgets 1996-1997

125. The theme will be addressed in Programmes 520, 530 and 540, which carry the main responsibility for providing industrial information and analyses. Programme 820 will contribute in terms of strengthening investment promotion institutions, identifying investment opportunities and promoting their implementation. Programme 830 will concentrate on cross-sectoral issues of technology acquisition and promotion. Programme 750 will cooperate with Programme 520 on environment-related information. Programme 620 will provide conceptual support to the various training activities involved.

Theme 6: Rural industrial development

126. Development of industries in rural areas serves a number of overall development objectives such as equitable development, poverty alleviation and food security. It also contributes to reduce migration to urban areas and strengthens other sectors, mainly agriculture and construction.

127. This theme will be addressed through three component programmes:

(a) Regional development;

(b) Agro-processing;

(c) Building materials and low-cost housing.

Component (a): Regional development

128. The issue of speeding up industrial development away from the urban conglomerates and particularly in less developed regions continues to be a high priority issue in many developing countries. The issue has become even more topical with a number of urban areas experiencing rapidly increasing problems in coping with almost exponential growth. Evidently, to overcome the strong attraction for industrial investment exercised by these large markets and realize investment in smaller urban and rural regions, strong supportive policies and other infrastructural and institutional measures are required.

129. UNIDO will concentrate on the development of concepts and policy approaches, based on experience in different parts of the world. Based on this, UNIDO will make available advisory and technical cooperation services. It will emphasize the linkages between industry and other productive sectors of the economy as this provides key opportunities for industrial development.

130. In specific less developed regions UNIDO will, on request, analyse the situation, render advice on specific policy measures to be taken and identify specific opportunities for development. Where appropriate, integrated development programmes for such regions may be developed and implemented.

131. In selected regions, investment forums may be organized based on identified, formulated and screened investment proposals on the lines of the successful forums carried out recently in different provinces of China. Tailor-made training activities targeted at enhancing the integration of rural population groups in industrial development will be undertaken as part of integrated development programmes, or as an ad hoc activity when justified.

Component (b): Agro-processing

132. Given the dominance of the agricultural sector in rural areas, a major area of opportunity lies in developing industries that add further value to agricultural products. This may include food products, leather, wood and other forest products, medicinal plants, natural fibres, meat and fish.

133. The emphasis evidently lies on small- and medium-scale industries where UNIDO can play a major role in making technology information more accessible, ensuring that clean technologies are used

as well as facilitating an environment conducive to SMEs.

134. Where appropriate, integrated programmes will be implemented in individual regions or countries comprising analysis and policy advice, technical cooperation and investment promotion for product groups or specific approaches addressing rural development issues in several countries. In the 1996-1997 biennium, work in the leather sector in Asia (in addition to the programme in Africa described under Theme 7), integrated programmes for wood products in Nicaragua and Ecuador, including collaboration with the Food and Agriculture Organization of the United Nations (FAO), and crop replacement activities funded by the United Nations International Drug Control Programme in Latin America will continue and be further developed. Thematic programmes for women entrepreneurs in agro-processing and training activities will be organized on request.

Component (c): Building materials and low-cost housing (excluding wood, covered under (b) above)

135. A second major branch of economic activity in rural areas, and essential for provision of basic needs, is housing construction. A very important link with industry evidently lies in low-cost building materials with a good performance. As building materials are heavy and therefore expensive to transport, they have to be manufactured locally, based on available raw materials. They have to be suitable for simple construction techniques and appropriate to the climate.

136. UNIDO will promote the production and use of composite building materials, specifically in rural areas. Given the wide variety of locally available materials (soils and clays) these need to be almost tailor-made for each locality. Raw materials include agricultural waste materials, soils and clays, and low proportions of cement and binders. These materials, and certainly composites using agricultural (fibrous) wastes are very suitable for manufacture by farmers and agricultural labour, providing productive employment at times when agricultural activity is low. As the exact balance of ingredients and manufacturing technology are vital for good quality products, this will be the focus of activities.

137. The essential approach of UNIDO is working through local institutions and national experts. Basic technology is transferred from other countries with similar conditions and raw materials to such institutions along with advice on dissemination methods and equipment options. Information on materials and basic technologies is made available through the UNIDO technology database. Assistance may be given in local application of transferred technology.

Link to programme and budgets 1996-1997

138. Activities under this theme will be carried out by different parts of the Organization. The regional development component will be mainly carried out by Programme 650 and Programme 820. Programme 620 will contribute to training of trainers and entrepreneurship development specifically addressing the requirements of rural regions. Gender issues will be integrated with the assistance of Subprogramme 312.

139. The subsector-specific activities will be primarily the responsibility of Programmes 720 and 730 with Programme 750 involved in biomass energy. The subsector-specific activities will be supported by targeted investment and technology promotion activities of Programmes 820 and 830. Where SME policies and groups of SMEs are concerned, Programme 640 will contribute to the theme.

Theme 7: Africa and least developed countries: linking industry with agriculture

140. In accordance with the Yaoundé Declaration (GC.5/Res.20), one of the major themes for the biennium 1996-1997 focuses on Africa and the least developed countries so as to ensure concerted action and priority attention to these countries. The resolution on the second Industrial Development Decade for Africa (IDDA) (GC.5/Res.12) defines further areas of concentration.

141. Given the dominance of agriculture in the economic activities in Africa and the LDCs, the potential long-term international competitive advantages that lie in agro-based products and the multiple linkages between industry and agriculture, this theme was selected as a major emphasis in the 1996-1997 biennium to support African industrial recovery. The focus will be on the double role of industry both in processing agricultural produce, and in providing inputs to increase agricultural productivity.

142. Focusing on the linkage between industry and agriculture also addresses the poverty alleviation objective through stimulating agricultural production and incomes as well as increasing employment in rural areas. In addition, SMEs that play a large role in processing of agricultural produce and the production of agricultural tools and implements will be given a strong boost.

143. This theme will be addressed through four component programmes:

(a) Analytical activities and industrial policy advice;

(b) Agro-processing (including food, leather, wood, natural fibres, etc.);

(c) Agricultural equipment;

(d) Fertilizers and pesticides.

144. This theme, in its component (b) on agro-processing industries, is evidently overlapping with the same component under Theme 6. Accordingly, UNIDO activities in support of agro-processing in Africa and in LDCs will be covered and reported under Theme 7 and excluded under Theme 6.

Component (a): Analytical activities and industrial policy advice

145. This component seeks to support the formulation of industrial sector policies that create an enabling environment for industrial development in general, and specifically in the indicated areas. This would include policy initiatives to enhance private sector development and the promotion of direct foreign investment, as well as the development of human resources. Special attention will be paid to ensure that equal participation of women in industrial development is promoted.

146. Studies will be carried out in relation to the specific issue of industry-agriculture linkages at the subregional and national levels.

147. Special surveys will be carried out for agro-related industry branches to identify opportunities and requirements for assistance. This analytical work is expected to also lead to integrated development programmes at the country level.

Component (b): Agro-processing

148. Adding value to agricultural products (including food, leather, wood and other forest products, medicinal plants, natural fibres as well as meat and fish) can provide a strong stimulus to agricultural production and income, contribute to food security and boost export earnings. Since in Africa, as well as in most LDCs, traditionally such processing is a women-dominated activity, it may in addition provide a strong stimulus to increase the involvement of women in industrial development. The subsector also provides considerable opportunity for SMEs.

149. Depending on available raw materials in individual countries, one or more product groups may be addressed, with the emphasis on an integrated approach. This means that UNIDO will in principle be available to assist Governments and the private sector in an analysis of the situation and development potential, and, based on this, develop an integrated package of UNIDO contributions including policy advice, technical cooperation addressing issues such as choice of appropriate, clean and competitive technology, product design, quality management and development of human resources, as well as complementary investment promotion activities.

150. Specific activities in the 1996-1997 biennium include continuing the successful work in the leather subsector in eight countries, development of integrated programmes in the forestry and wood products areas in collaboration with FAO in some selected countries, development of integrated programmes in food-processing in six to eight selected countries, including repair and maintenance of food-processing equipment, women-specific training in food processing as well as further implementation of the women entrepreneurship programme in food processing, textiles and leather products. As part of the programmes, enterprise restructuring and rehabilitation of existing enterprises will play a considerable role.

151. It is anticipated that a Techmart will be organized addressing food-processing technologies for SMEs in the region. This will also receive special emphasis in the INTIB database. An investment forum/Investmart will be organized as well, possibly in combination with the Techmart. Opportunities identified as part of the integrated programmes will play a major role.

152. A round-table for Africa and LDCs will be held on institutional arrangements for industrial cooperation and partnerships in agro-industries, as well as a workshop on packaging for agro-industrial sectors.

153. In the Asia and Pacific region, the special programme for LDCs will, in its second phase, emphasize food processing.

Component (c): Agricultural equipment

154. Appropriate machinery, implements and tools including irrigation-related equipment such as pumps, are essential to increase agricultural productivity. According to an FAO analysis, only an increase in the technology level of agricultural tools and machinery used can enable a number of African countries to continue to feed their populations. The same is valid for most non-African LDCs. Specifically, timely and better seedbed prepara-tion, better weed control and more efficient harvesting, storage and processing are essential, and these require appropriate tools and equipment.

155. Based on a thorough analysis of African countries in respect of the status of the agricultural equipment

subsector, integrated programmes will be developed in selected countries incorporating product design, technical cooperation on mechanical engineering and production processes, human resource development for the industry, advice on promotional policies and distribution arrangements as well as related repair and maintenance and spare part manufacture. For the simpler tools and equipment emphasis will lie on small and medium-scale producers in smaller urban and rural areas.

156. Special attention will be paid to agricultural equipment and manufacturing technology in the UNIDO INTIB database and technological information exchange system network. Specifically for the southern African region, ECDC/TCDC may provide opportunities for involving industrial investment from South Africa. For the more advanced machinery, international partners will be sought through the investment promotion activities of UNIDO, including an investment forum when sufficient opportunities have been identified.

Component (d): Fertilizers and pesticides

157. The main objective for UNIDO under this component is not primarily production of fertilizers and pesticides but enabling the cost-efficient availability of key agrochemicals to the agricultural sector. At the national level this may frequently mean that industrial activity may be limited to blending of imported fertilizer components and/or production of some components based on locally available raw materials, formulation of pesticides based on imported active ingredients and appropriate packaging of fertilizers and pesticides in appropriate sizes.

158. Special attention will be paid to the production of low-risk, low-volume chemicals and bio/botanical pesticides. Supporting information on the most advanced and latest development of such agrochemicals and their production will be a subject for targeted information products prepared in consultation with FAO.

Link to programme and budgets 1996-1997

159. Given the focus on Africa and LDCs, coordinating roles will be played in the development and monitoring of the theme and its components by Programme 330 and Subprogramme 313 in collaboration with Programmes 340, 350 and 370. Funds from Programmes 910 and 920 specifically targeted at Africa will be drawn upon to support the development of the theme. Subprogramme 312 will ensure that gender-related issues are integrated in the theme and its components.

160. The analytical work will be carried out mainly by Programmes 540, 620, 640 and 650. The processing of agricultural produce involves Programme 720, with medicinal plants being the responsibility of Programme 730, agricultural equipment addressed by Programme 740 and agrochemicals by Programme 730. Throughout the theme, major roles will be played by Programme 820 and 830 in terms of targeted investment and technology promotion, and by Programme 840 in terms of ECDC/TCDC. For all activities specifically related to SMEs, Programme 640 will contribute.

V. IMPLEMENTATION MECHANISMS AND FOLLOW-UP ACTION

161. Interdivisional task forces will be set up to take responsibility for each of the themes/components. This responsibility would include the development of conceptual frameworks and of integrated programmes and projects. These task forces will also be responsible for monitoring the theme/component as a whole and for reporting at the thematic level. Joint programming, funding and implementation with other United Nations agencies and/or other international or bilateral organizations will be encouraged as appropriate.

162. To ensure adherence to the established priorities of the Organization and to the interrelated geographical, subsectoral and thematic focus as elaborated in this document, the screening mechanism introduced in Director-General's Bulletin UNIDO/DG/B.177 will be further refined and applied systematically in the process of developing integrated programmes and selecting and approving UNIDO projects.

163. Each proposal/request for UNIDO services is being screened to assess (a) its conformity with the mandate of UNIDO and the programming framework for the country concerned, (b) its compatibility with completed, ongoing and pipeline projects in the same field and/or the same country, (c) the potential availability of funds, and (d) its technical contents, the expertise required and the availability of this expertise at UNIDO.

164. In addition, the Programme and Project Review Committee (PPRC), before approving a project for implementation by UNIDO, ensures that it (a) complies with the financial and other rules and regulations of the Organization, (b) incorporates a significant substantive input from UNIDO, and (c) meets the established quality criteria of relevance, cost-effectiveness and sustainability.

165. Following endorsement of the proposed focus of UNIDO activities by Member States, PPRC would ensure that the freely programmable technical

cooperation resources of UNIDO are actually geared towards addressing the seven programmatic themes and the subsectoral priorities. This applies in particular to seed money from the Regular Programme of Technical Cooperation (including its IDDA component) and the Industrial Development Fund (IDF) general-purpose convertible contributions.

166. UNIDO has initiated internal work on expanding the guidelines for service management—which at present concentrate on the project identification, design and approval stages—to cover also the post-approval stages, i.e. the financing, implementation, monitoring and evaluation of UNIDO projects, as well as the pre-project programming activities. Particular attention will further be given to the monitoring of service delivery and the evaluation and internal audit of specific projects. The newly established mechanism of quarterly management control meetings will provide the necessary tool to monitor closely the adherence to the prioritization policies and to ensure that corrective measures are taken at early stages of potential deviation.

167. The evaluation of projects, including in-depth evaluations as well as internal audits, is seen as an important instrument for mid-term and ex-post assessment of the compliance of projects with the priorities, the actual involvement and inputs by various organizational units, the cost-effectiveness and the impact at the level of recipient countries. The results of these evaluations and internal audits will be used as control and as feedback for the development of new programmes and projects and for related team building efforts. The integration of the Quality Assurance and Evaluation functions within Programme 430, as proposed in the programme and budgets for the 1996-1997 biennium, will facilitate this direct feed-back system. New evaluation approaches may have to be developed with a view to assessing the impact of UNIDO activities at the thematic level.

168. It is further intended that in future bienniums, the Programme Performance Report will report on the actual substantive achievements under the seven themes by component, including contributions made by different organizational units, actual regular budget/operational budget resources used for, and technical cooperation expenditures incurred under the seven as well as outside the seven themes.

169. The full operationalization of the seven programmatic themes can only be achieved with strong financial support from Member States, both directly through pledges to IDF, as well as indirectly through other development financing sources (World Bank, UNDP, European Union, etc.). This would reinforce programmes and projects in agreed areas of concentration and allow the development of high-priority integrated programmes.

170. On its part, UNIDO will take action to ensure that staff development and training resources—which in the 1996-1997 programme and budgets have been largely decentralized—will be utilized to build up expertise in accordance with the proposed priorities.

VI. ACTION REQUIRED OF THE BOARD

171. The Board may wish to express its views on the proposals advanced in the present report.

Annex

UNIDO PRIORITIZATION OF INDUSTRIAL SUBSECTORS ACCORDING TO THE INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION (ISIC)

ISIC Subsector	Category	High priority	Low priority	No coverage
	Agro-based Industries			
31	**Manufacture of Food, Beverages and Tobacco**			
3111	Slaughtering, preparing and preserving meat	X		
3112	Manufacture of dairy products	X		
3113	Canning and preserving of fruits and vegetables	X		
3114	Canning, preserving and processing of fish, crustacea and similar foods	X		
3115	Manufacture of vegetable and animal oils and fats	X		
3116	Grain mill products	X		
3117	Manufacture of bakery products		X	
3118	Sugar factories and refineries	X		
3119	Manufacture of cocoa, chocolate and sugar confectionery		X	
3121	Manufacture of food products not elsewhere classified	X		
3122	Manufacture of prepared animal feeds		X	
3131	Distilling, rectifying and blending spirits			X
3132	Wine industries			X
3133	Malt liqueurs and malt			X
3134	Soft drinks and carbonated waters industries			X
3140	Tobacco manufactures			X
32	**Textile, Wearing Apparel and Leather Industries**			
3211	Spinning, weaving and finishing textiles	X		
3212	Manufacture of made-up textile goods except wearing apparel	X		
3213	Knitting mills		X	
3214	Manufacture of carpets and rugs	X		
3215	Cordage, rope and twine industries		X	
3219	Manufacture of textiles not elsewhere classified		X	
3220	Manufacture of wearing apparel, except footwear	X		
3231	Tanneries and leather finishing	X		
3232	Fur dressing and dyeing industries			X
3233	Manufacture of products of leather and leather substitutes, except footwear and wearing apparel	X		
3241	Manufacture of footwear, except vulcanized or moulded rubber or plastic footwear	X		
33	**Manufacture of Wood and Wood Products, including Furniture**			
3311	Sawmills, planing and other wood mills	X		
3312	Manufacture of wooden and cane containers and small cane ware		X	
3319	Manufacture of wood and cork products not elsewhere classified		X	
3320	Manufacture of furniture and fixtures, except primarily of metal	X		
TOTAL		**17**	**8**	**6**

ISIC Subsector	Category	High priority	Low priority	No coverage
	Chemical Industries			
34	**Manufacture of Paper and Paper Products; Printing and Publishing**			
3411	Manufacture of pulp, paper and paperboard	X		
3412	Manufacture of containers and boxes of paper and paperboard	X		
3419	Manufacture of pulp, paper and paperboard articles not elsewhere classified	X		
3420	Printing, publishing and allied industries		X	
35	**Manufacture of Chemicals and of Chemical, Petroleum, Coal, Rubber and Plastic Products**			
3511	Manufacture of basic industrial chemicals except fertilizers	X		
3512	Manufacture of fertilizers and pesticides	X		
3513	Manufacture of synthetic resins, plastic materials and man-made fibers except glass	X		
3521	Manufacture of paints, varnishes and lacquers		X	
3522	Manufacture of drugs and medicine	X		
3523	Manufacture of soap and cleaning preparations, perfumes, cosmetics and other toilet preparations			X
3530	Petroleum refineries			X
3540	Manufacture of miscellaneous products of petroleum and coal		X	
3551	Tire and tube industries		X	
3559	Manufacture of rubber products not elsewhere classified		X	
3560	Manufacture of plastic products not elsewhere classified		X	
36	**Manufacture of Non-metallic Mineral Products except Products of Petroleum and Coal**			
3610	Manufacture of pottery, china and earthenware		X	
3620	Manufacture of glass and glass products	X		
3691	Manufacture of structural clay products		X	
3692	Manufacture of cement, lime and plaster	X		
3699	Manufacture of non-metallic mineral products not elsewhere classified			X
TOTAL		**9**	**8**	**3**

ISIC Subsector	Category	High priority	Low priority	No coverage
	Engineering Industries			
37	**Basic Metal Industries**			
3710	Iron and steel basic industries		X	
3720	Non-ferrous metal basic industries		X	
38	**Manufacture of Fabricated Metal Products, Machinery and Equipment**			
3811	Manufacture of cutlery, hand tools and general hardware		X	
3812	Manufacture of furniture and fixtures primarily of metal		X	
3813	Manufacture of structural metal products		X	
3819	Manufacture of fabricated metal products except machinery and equipment not elsewhere classified	X		
3821	Manufacture of engines and turbans		X	
3822	Manufacture of agricultural machinery and equipment	X		
3823	Manufacture of metal and wood working machinery	X		
3824	Manufacture of special industrial machinery and equipment except metal and wood working machinery			X
3825	Manufacture of office, computing and accounting machinery		X	
3829	Machinery and equipment except electrical not elsewhere classified		X	
3831	Manufacture of electrical industry machinery and apparatus		X	
3832	Manufacture of radio, television and communication equipment and apparatus		X	
3833	Manufacture of electrical applicants and housewares		X	
3839	Manufacture of electrical apparatus and supplies not elsewhere classified		X	
3841	Ship building and repairing			X
3842	Manufacture of railroad equipment	X		
3843	Manufacture of motor vehicles	X		
3844	Manufacture of motorcycles and bicycles	X		
3845	Manufacture of aircraft			X
3849	Manufacture of transport equipment not elsewhere classified		X	
3851	Manufacture of professional and scientific, and measuring and controlling equipment, not elsewhere classified		X	
3852	Manufacture of photographic and optical goods			X
3853	Manufacture of watches and clocks			X
3901	Manufacture of jewelry and related articles			X
TOTAL		**6**	**14**	**6**